

**STANDARD SPECIFICATION**  
**SECTION 03351**  
**EXPOSED AGGREGATE CONCRETE**

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**STANDARD SPECIFICATION**  
**SECTION 03351**  
**EXPOSED AGGREGATE CONCRETE**

**PART 1 - GENERAL**

**1.01    SCOPE**

Provide exposed aggregate concrete on exterior and on interior as required by the drawings.

**1.02    PROFILE**

Six inches thick unless otherwise shown by special details on the drawings.

**1.03    LINE AND GRADE**

As shown on the drawings.

**1.04    METHOD**

Exposed aggregate concrete shall be produced by exposing the coarse aggregate of a gap graded concrete mix.

**1.05    TEST PANELS AND BANDS**

Prior to doing actual work, prepare one test panel or one section of band (more if required) to demonstrate proficiency of the workmen, and define the degree of aggregate exposure. Make test bands 20 feet long using precisely the methods and materials to be used on the final installation. Uniformity in appearance of each panel or band shall be the responsibility of the Contractor. The approved test panel shall serve as a standard of appearance for the final work.

## PART 2 - PRODUCTS

### 2.01 CONCRETE

Conform to Section 03300, Cast-in-Place Concrete, except as modified herein. Use concrete with 3,000 psi strength at 28 days. Concrete shall be gap-graded with weathered rounded coarse aggregate with 45 to 48 percent matrix. Concrete shall have a water cement ratio not greater than 0.55 by weight, shall have a maximum slump of 3 inches, an air content of 4-1/2 % to 7-1/2% and shall contain a minimum of 5-1/2 sacks of cement per cubic yard.

### 2.02 AGGREGATE

Aggregate shall be 3/4" round with the following sieve graduation:

<u>Size</u>	<u>% Passing</u>
1"	100
3/4"	90-100
3/8"	40-60
#4	0-10
#8	0-5

## PART 3 - EXECUTION

### 3.01 PLACING CONCRETE

Place concrete as nearly as practicable in its final position. Distribute and consolidate concrete in a manner to avoid segregation of materials. Timing and workmanship is critical in this work. Insofar as practicable, use the same workmen who prepared the approved test panels.

### 3.02 FLOATING

As soon as concrete will support the mason on knee-boards, float the surface to bring grout to the surface, completely surrounding the aggregate and filling all surface voids. Float to a uniform appearance.

### 3.03 EXPOSING AGGREGATE

Proceed as soon as the surface grout can be removed by simultaneous brushing and flushing with water without overexposing or dislodging the aggregate. Avoid traffic on the concrete during this operation. High pressure water may be used if desired finish is more easily achieved without harm to the concrete. Use same method of exposure, either with or without retarder, throughout the job.

3.04 CURING

Use a liquid curing hardener as specified in the Cast-In-Place Concrete Section.

3.05 PROTECTION

Protect from damage due to construction activities. Replace sections so damaged as directed by the Sandia Delegated Representative.

3.06 RETARDERS

The use of retarders is at the Contractor's option.

END OF SECTION